A tale of two porpoise species: Seasonal movements and habitat use of Dall's and harbor porpoise in the Salish Sea as determined by radio-telemetry

Brad Hanson, NOAA NWFSC*
Robert DeLong, NOAA NMML

Keywords: Habitat use, Movements, Harbor poproise, Dall's porpoise, radio-telemetry

Monitoring the long-term movements of small cetaceans with radio-telemetry has the potential to identify important seasonal habitat use patterns. The seasonal movements of Dall's and harbor porpoises which were monitored with satellite-linked transmitter data and/or periodic relocation of VHF transmitter signals for a minimum of 6 months up to over a year from 1998 to 2004. These data include two Dall's porpoises tagged in Haro Strait, three harbor porpoises tagged in the western Strait of Juan de Fuca, and one harbor porpoise tagged in the northern San Juan Islands. In most cases, locations were obtained least weekly but usually more often. For all these animals, multi-season residency was generally observed in Haro Strait, Strait of Juan de Fuca, and southern Georgia Strait, with only limited seasonal use of La Perouse and Swiftsure Banks. One of the Dall's porpoises displayed the largest scale shifts between different areas. All the harbor porpoises displayed distinct, yet more limited seasonal movement patterns. Bathymetric and land features of this region, in combination with oceanographic conditions likely serve to provide relatively consistently high productivity. In addition, these features and conditions also likely concentrate this productivity in many of these areas, supporting both species as year-round residents.